CLAIMS

1. A method of generating a pulse signal, comprising the steps of:

providing a pair of magnetic field sources in parallel to each other such that their opposite poles are faced to each other;

providing a magnetic element between said magnetic field sources;

advancing an object from one of said opposite poles to the other to thereby change a magnetic field applied to said magnetic element, which causes a large Barkhausen jump in said magnetic element; and

generating a pulse signal in response to said large Barkhausen jump.

2. A method of generating a pulse signal according to claim 1, wherein said magnetic field sources consist of parallel magnets and magnetic circuit forming members.

3. A method of generating a pulse signal according to claim 1, wherein said magnetic field sources consist of only parallel magnets.

4. A method of generating a pulse signal, comprising the steps of:

providing a pair of magnets in parallel to each other such that their opposite poles are faced to each other;

providing a magnetic element between said magnets;

placing an object at a first position which is opposed to one of said opposite poles to apply a negative-direction magnetic field to said magnetic element;

advancing said object to a second position which is opposed to the other of said opposite poles to apply a

positive-direction magnetic field to said magnetic element, thus changing a direction and amount of said magnetic field applied to said magnetic element, which causes a large Barkhausen jump in said magnetic element; and

generating a pulse signal in response to said large Barkhausen jump.

5. A method of generating a pulse signal according to claim 4, wherein said opposite poles of said magnets have a variable distance.

6. A method of generating a pulse signal according to claim 4, wherein said magnets have a width greater than that of said object.

7. A method of generating a pulse signal according to claim 4, wherein said magnetic element extends from said one end of said magnets to a predetermined distance from the other end of said magnets.

8. A method of generating a pulse signal according to claim 7, wherein said predetermined distance is no more than one half of said magnets.

9. A method of generating a pulse signal according to claim 4, wherein said magnetic element extends at a predetermined angle with a longitudinal direction of said magnets.

10. A pulse signal generator comprising:

a magnetic element able to cause a large Barkhausen jump,

detection means for detecting a magnetic changes in said magnetic element to generate a pulse signal; and

a pair of magnetic field sources provided in parallel to each other on opposite sides of said magnetic elements such that their opposite poles are faced to each other so that when an object advances from one of said opposite poles to the other, a magnetic field applied to

said magnetic element changes to case a large Barkhausen jump in said magnetic element, thus causing said detection means to generate a pulse signal.

11. A pulse signal generator according to claim 10, wherein said magnetic field sources consist of parallel magnets and magnetic circuit forming members.

12. A pulse signal generator according to claim 11, which further comprises an auxiliary magnetic circuit forming member for connecting said magnetic circuit forming members at other ends which are opposite to said one ends.

13. A pulse signal generator according to claim 12, wherein said auxiliary magnetic circuit forming member is connected to said magnetic circuit forming members at varying points.

14. A pulse signal generator according to claim 12, wherein said magnetic element is spaced at an end thereof from said auxiliary magnetic circuit forming member by a predetermined distance.

15. A pulse signal generator according to claim 10, wherein said magnetic field sources consist of only magnets.

16. A pulse signal generator according to claim 15, wherein said opposite poles of said magnets have a variable distance.

17. A pulse signal generator according to claim 15, wherein said magnets have a width greater than that of said object.

18. A pulse signal generator according to claim 15, wherein said magnetic element extends from said one end of said magnets to a predetermined distance from the other end of said magnets.

19. A pulse signal generator according to claim 18, wherein said predetermined distance is no more than one half of said magnets.

20. A pulse signal generator according to claim 15, wherein said magnetic element extends at a predetermined angle with a longitudinal direction of said magnets.